



# **State Renewable Energy Policies in the Southwest**

SunLab

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State and Local Initiatives

National Renewable Energy Laboratory



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## Adopting Policies for Renewables

- ◆ All renewable energy policies can be used in either a restructured or a regulated industry
- ◆ Remove market barriers to adoption of renewable energy
- ◆ Can account for non-cost benefits

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Source: U.S. Energy Information Administration, August 1, 1999



# Renewable Energy Policies

- ◆ Portfolio Standard
  - requires every electricity supplier to provide a minimum percentage of its supply from renewables
- ◆ System Benefits Charge
  - collects a standard fee from all electricity customers to fund renewables development

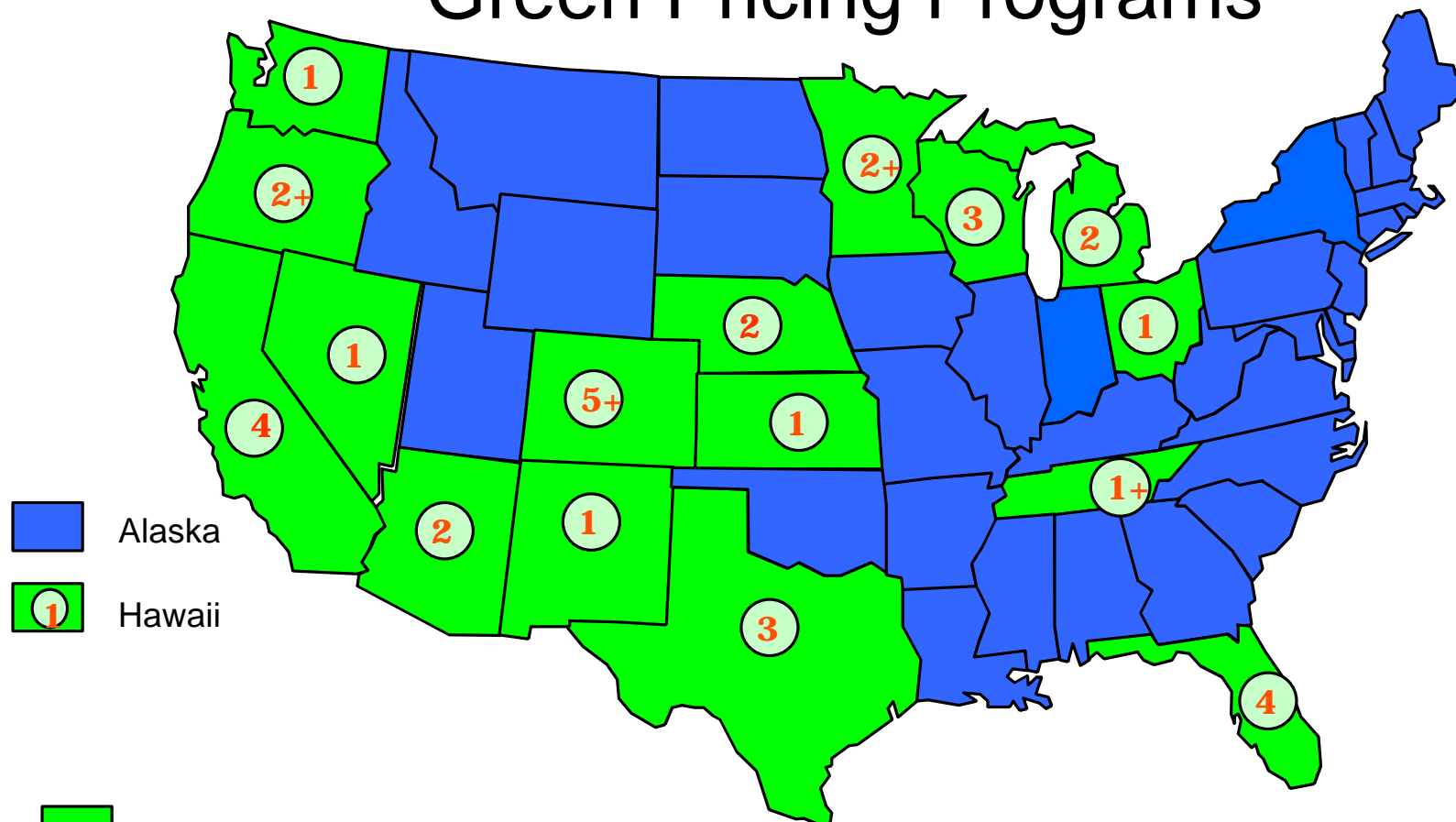



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# Renewable Energy Policies

- ◆ Net Metering
- ◆ Disclosure and Certification
- ◆ Green Pricing
- ◆ Tax Incentives
- ◆ Loan Programs
- ◆ Government Purchase Programs
- ◆ Equipment/Contractor Certification

# Green Pricing Programs



 Green pricing program exists.

 # of utilities or cooperatives with green pricing programs,  
+ indicates that a number of rural cooperatives are  
offering programs

 No green pricing programs (yet)

Updated July 22, 1999

## Current Southwest Policies

	Portfolio Standard	System Benefits	Net Metering	Disclosure	Green Pricing	Tax Incentives
Arizona	?		✓		✓	✓
California		✓	✓	✓	✓	
Colorado			✓	✓	✓	✓
Nevada	✓		✓	✓	✓	✓
New Mexico		✓	✓	✓	✓	
Texas	✓		✓	✓	✓	✓

## Current State Policies

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- AZ Corporation Commission restructured electricity sector in August 1998
- ACC revised restructuring plan and eliminated Solar Portfolio Standard in April 1999 - competition phased in with full participation in 2001
- ACC hearing next month on (re)establishing Renewable Portfolio Standard
- 2 green pricing programs for centralized PV systems (up to 600kW)



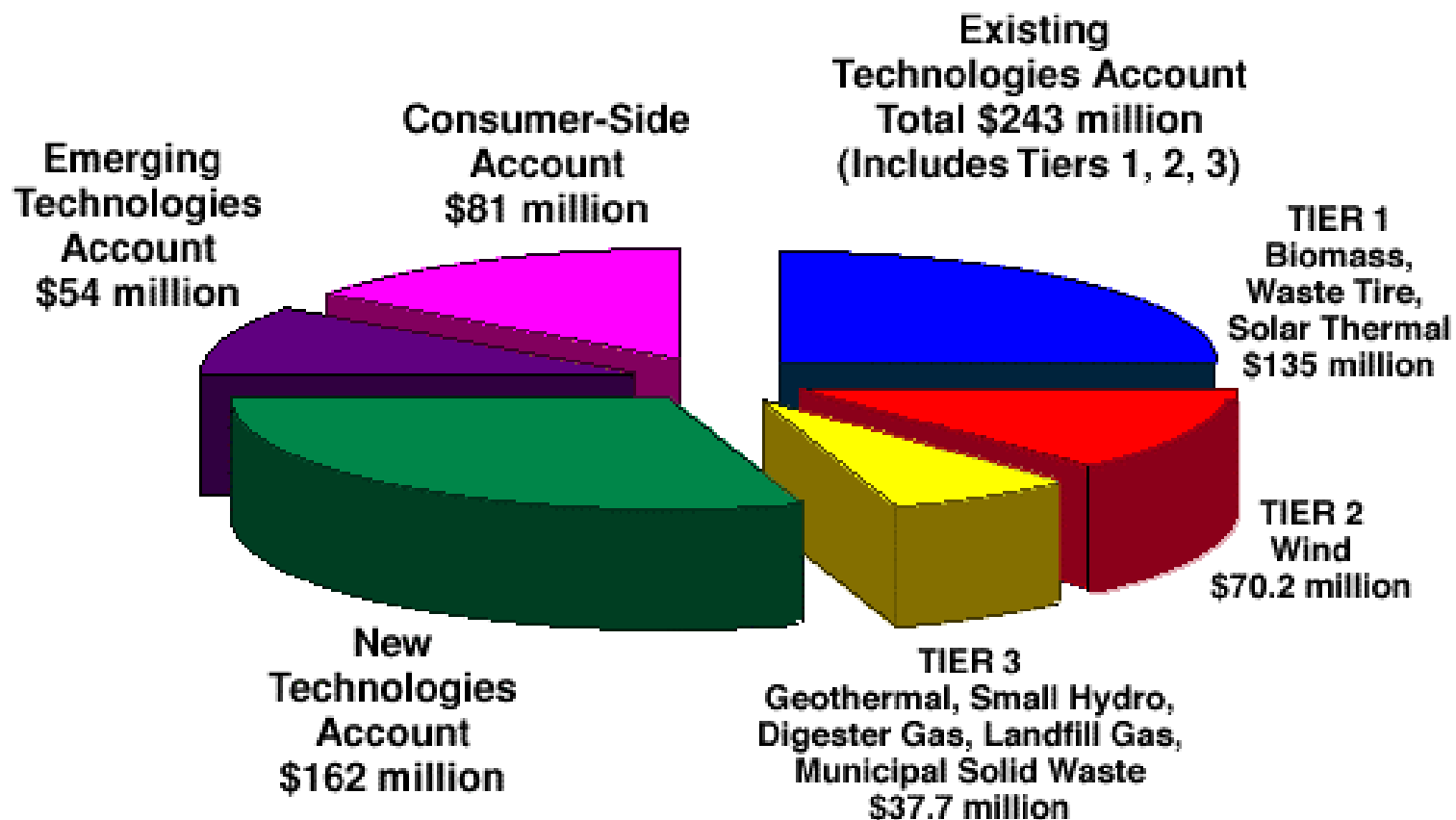
## Current State Policies

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- Restructuring law enacted in September 1996. Retail access began March 1998
- SBC during transition period: \$540 million for renewables over 4 years
- Electricity sold through power exchange (PX) on day-ahead and day-of trading.
- Green market - 1.5¢/kWh credit for green power. Market slow to build due to market rules
- Several Green Pricing programs

# California System Benefits Charge





# California Power Label

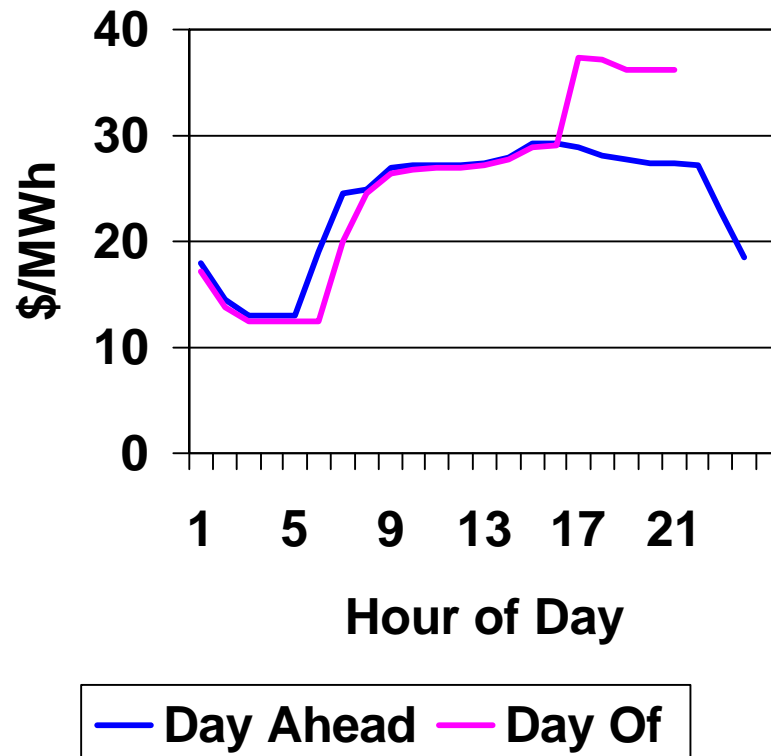
POWER CONTENT LABEL		
ENERGY RESOURCES	PRODUCT A* (projected)	1998 CA POWER MIX** (for comparison)
<b>Eligible Renewable</b>	<b>55%</b>	<b>11%</b>
-Biomass & waste	-	2%
-Geothermal	-	5%
-Small hydroelectric	-	2%
-Solar	-	<1%
-Wind	-	1%
<b>Coal</b>	<b>10%</b>	<b>20%</b>
<b>Large Hydroelectric</b>	<b>11%</b>	<b>22%</b>
<b>Natural Gas</b>	<b>16%</b>	<b>31%</b>
<b>Nuclear</b>	<b>8%</b>	<b>16%</b>
<b>Other</b>	<b>&lt;1%</b>	<b>&lt;1%</b>
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>
* 50% of <b>Product A</b> is specifically purchased from individual suppliers.		
**Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.		
For specific information about this electricity product, contact <b>Company Name</b> . For general information about the Power Content Label, contact the California Energy Commission at 1-800-555-7794 or <a href="http://www.energy.ca.gov/consumer">www.energy.ca.gov/consumer</a>		

- As of fall 1998, Electric Service Providers (ESPs) are required to include the power content label in all advertisements
- Products with over 50% content renewables can be certified by Green-e and use the logo.



# California Power Exchange

## CA PX Prices - 8/12/99



- Wholesale Electricity Market
- Started with “Day ahead” market March 31, 1998. Bids by price and volume - lead to unconstrained market price for each hour in 24 hour period.
- “Day of” market in started in 1999 with 3 bid periods per day.
- No studies yet overlaying solar availability with price premiums by hour.

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## Current State Policies



- Not likely to restructure
- Successful green pricing program has led to 20MW installed wind
- IRP process requiring some renewables -- 25 MW wind to date.
- Governor has eliminated renewables program from State Energy Office
- Solar rebates end 1999

## Current State Policies

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- Restructuring law enacted in July 1997
- 1999 decision to delay restructuring until at least March 2000
- Renewable Portfolio Standard - 0.2% of power (45,000 MWh) increasing to 1% in 2010
- 1/2 of RPS must come from solar
- Green Pricing - 40kW of centralized PV

## Current State Policies

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- Restructuring law enacted in April 1999
- Small consumers have retail access in 2001, all in 2002
- SBC for renewables up to \$4 million per year through local governments and schools. Also allows electrification of rural tribes
- 5 MW solar plant now scaled back -- unlikely to proceed
- Green pricing program for wind

## Current State Policies

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- Restructuring law passed June 1999
- Retail access by 2002
- RPS requiring 2,000 MW of new renewables by 2009. (Still only 3% of state usage)
- PUC in process of detailing RPS, including whether to put set-asides for solar, etc.
- Green Pricing programs for wind, hydro and central PV



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## Current State Policies



- Electric Deregulation and Customer Choice Task Force extended through Nov. 2000
- “Go Slow” approach on restructuring
- No green pricing programs
- Likely renewable programs stemming from air quality regulations



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## Western Regional Air Partnership

- Grand Canyon Visibility Transport Commission included 9 western states. Recommendations included 10% electricity generation from non-hydro renewables by 2005, increasing to 20% by 2015.
- April 1999: RE goals included in EPA Regional Haze Rule as non-binding targets. States must perform extensive analysis on potential for RE in states -- first report due in 2003.
- Air Pollution Prevention Forum of WRAP working on recommendations to help states move towards renewable energy targets.